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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,139	01/22/2004	Jen-Tong Ho	Y4P4001-D0C0020	4145
47415	7590	06/30/2005	EXAMINER	
YU-CHUN LIU 235 CHUNG-HO BOX 8-24 TAIPEI HSIEN, 235 TAIWAN			REESE, DAVID C	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/762,139	<b>Applicant(s)</b> HO, JEN-TONG	
	<b>Examiner</b> David C. Reese	<b>Art Unit</b> 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Amendment: 9 June 2005.  
 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7,8 and 10 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 7-8, 10 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 09 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

*h*

### **DETAILED ACTION**

This office action is in response to Applicant's amendment filed 6/9/2005.

#### ***Status of Claims***

- [1] Claims 7-8, 10 are pending.

#### ***Drawings***

- [2] The drawing(s) were previously objected for informalities. In view of Applicant's replacement drawing(s) submitted on 6/9/2005, all previous objection(s) to the drawings have been withdrawn, except for that regarding Figure 3. In Figure 3, the last helix angle should be labeled  $\theta_5$  not  $\theta_1$ . All other corrections have been entered.

#### ***Specification***

- [3] The disclosure was previously objected to for informalities. Applicant has to a degree successfully addressed these issues in the amendment filed on 6/9/2005. A few grammatical and formatting issues still remain, for example, on the non-marked up copy of the amended specification, it is stated at the top, "Mark-up copy of the amended specification" This statement is not needed. Also, in the summary of the invention, "...and a fifth section having a first thread with a first helix angle," should be changed to "and a fifth section having a fifth thread with a fifth helix angle. In the detailed description of the invention, "helix angle 01" in both lines 12 and 17 should be changed to "helix angle  $\theta_1$ ," as well as the sentence in line 12 changed to read "with the fifth helix angle  $\theta_1$  which is identical to that is the first section 1." Also, in line 12 on

page 19, “, and the fifth thread,” should read, “with the fifth thread.” Examiner asks for applicant’s cooperation again in maintaining that the specification is completely error-free.

***Claim Rejections - 35 USC § 112***

[4] Applicant has to some degree addressed the rejections under 35 USC § 112 to the Claims in the amendment filed 6/9/2005. Issues still require resolve (please see below).

[5] Claims 7 and 8 remain rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention (see examiner’s note below).

***Claim Rejections - 35 USC § 102***

[6] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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[7] Claims 10 is rejected under 35 U.S.C. 102(b) as clearly anticipated by Gotoh, US-5,015,134 because the invention was patented or described in a printed publication in this or a foreign country, or in public use or on sale in this country more than one (1) year prior to the application for patent in the United States.

The shape and appearance of Gotoh is identical in all material respects to that of the claimed design, *Hupp v. Siroflex of America Inc.*, 122 F.3d 1456, 43 USPQ2d 1887 (Fed. Cir. 1997).

As for Claim 10, Gotoh teaches of a screw with a plurality of helix angles comprising:  
a first section having a first thread with a first helix angle (one below 5'),  
at least one third section having a third thread with a third helix angle (8); and  
a fifth section having a fifth thread with the fifth helix angle (5); and the fifth thread being identical to the first thread (one below 5');

wherein the third helix angle (8) is not equal to the first helix angle (one below 5');

wherein a second section is connected between the first section and the third section; the section has a second thread with a section helix angle (5'); a fourth section (6) is connected between the third section (8) and the fifth section (5); and the fourth section has a fourth thread with a fourth helix angle (6); and

wherein the fourth helix angle (6) is unequal to the second helix angle (5').

**Examiner's Note:**

In view of further examination it has been found that Claim 10 is indeed anticipated by the prior art (see above). As a result, the instant action has therefore become non-final. In

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addition, in view of the 112 rejections, the examiner believes that the claim structure of Claims 7-8 can be improved to better relate, in a clear and precise manner, the claims of the instant invention. Consequently, the following claims drafted by the examiner and considered to distinguish patentably over the art of record in this application, are presented to applicant for consideration:

Claim 18 (old Claim 7) A screw having a single continuous thread with a plurality of helix angles comprising:

- a first section having a first helix angle,
- at least one third section having a third helix angle; and
- a fifth section having a fifth helix angle; the fifth helix angle being the same as the first helix angle;

wherein the third helix angle is not equal to the first and fifth helix angle;

wherein a second section is located between the first section and the third section; the second section having a second helix angle; and

wherein a fourth section is located between the third section and the fifth section, the fourth section having a fourth helix angle; and

wherein the third helix angle is 150 to 170% of the first and fifth helix angles, and the helix angles of both the fourth and second sections is 67 to 75 % of that of the first and fifth sections.

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Claim 19 (old Claim 8) A screw having a single continuous thread with a plurality of helix angles comprising:

a first section having a first helix angle,  
at least one third section having a third helix angle; and  
a fifth section having a fifth helix angle; the fifth helix angle being the same as the first helix angle;

wherein the third helix angle is not equal to the first and fifth helix angle;  
wherein a second section is located between the first section and the third section; the second section having a second helix angle; and

wherein a fourth section is located between the third section and the fifth section, the fourth section having a fourth helix angle; and

wherein the third helix angle is 30 to 50% of the first and fifth helix angles, and the helix angles of both the fourth and second sections is 125 to 135% of that of the first and fifth sections.

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***Conclusion***

**[8] THIS ACTION IS NON-FINAL**


**[9]** Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Reese whose telephone number is (571) 272- 7082. The examiner can normally be reached on 7:30 am - 6:00 pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (571) 272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sincerely,  
David Reese  
Assistant Examiner  
Art Unit 3677

DCR

  
ROBERT J. SANDY  
PRIMARY EXAMINER